

WHAT IS CLAIMED IS:

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1. An optical disk device, comprising:
  - an optical pickup that irradiates a laser beam onto a rotating optical disk;
  - a tilt measurement unit configured to
  - 10 measure a tilt of the optical pickup relative to the optical disk at a preset measurement position; and
  - a tilt correction unit configured to perform correction at the preset measurement position using tilt data measured at the preset measurement position,
  - 15 wherein:
    - the optical pickup is moved and set at a plurality of the preset measurement positions in a radial direction on the optical disk, and the tilt measurement unit measures the tilt at each of the
    - 20 preset measurement positions, intervals between adjacent two of the preset measurement positions being set shorter and shorter from an inner region to a peripheral region of the optical disk.

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2. The optical disk device as claimed in  
claim 1, wherein the tilt data measured at one of the  
preset measurement positions is used in common for the  
tilt correction throughout a predetermined region  
5 including the one of the preset measurement positions.

10 3. The optical disk device as claimed in  
claim 1, further comprising a calculation unit  
configured to calculate a tilt value at a position  
between adjacent two of the preset measurement  
positions using the tilt data measured at the two  
15 adjacent preset measurement positions, said tilt  
correction unit correcting the tilt at the position  
using the calculated tilt value,  
wherein:  
in an inner region on the optical disk on  
20 the inner side of the innermost preset measurement  
position, the calculation unit assigns the calculated  
tilt value to be equal to the tilt data measured at the  
innermost preset measurement position; and  
in a peripheral region on the optical disk  
25 on the outer side of the outermost preset measurement

position, the calculation unit assigns the calculated tilt value to be equal to the tilt data measured at the outermost preset measurement position.

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4. The optical disk device as claimed in claim 1, wherein when an intended location of one of the preset measurement positions is between a recorded region and an unrecorded region on the optical disk, the actual location of the one of the preset measurement positions is shifted by a predetermined distance in a radial direction on the optical disk relative to the intended location of the one of the preset measurement positions.

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5. A tilt correction method for correcting a tilt of an optical disk relative to an optical pickup in an optical disk device wherein the optical pickup irradiates a laser beam onto the optical disk, comprising:

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a first step of moving the optical pickup  
and setting the optical pickup at a plurality of preset  
measurement positions in a radial direction on the  
optical disk, intervals between adjacent two of the  
5 preset measurement positions being set shorter and  
shorter from an inner region to a peripheral region of  
the optical disk;

a second step of measuring the tilt at each  
of the preset measurement positions; and

10 a third step of performing tilt correction  
at each of the preset measurement positions using  
corresponding measured tilt data.

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6. The tilt correction method as claimed in  
claim 5, the third step comprising a step of correcting  
the tilt throughout a predetermined region including  
20 one of the preset measurement positions using the tilt  
data measured at the one of the measurement positions.

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7. The tilt correction method as claimed in claim 5, further comprising, after the first step, a step of calculating a tilt value at a position between the adjacent two of the preset measurement positions, and correcting the tilt at the position using the calculated tilt value,

wherein:

the third step comprises a step of:

assigning the calculated tilt value in an inner region on the inner side of the innermost preset measurement position to be equal to the tilt data measured at the innermost preset measurement position; and

assigning the calculated tilt value in a peripheral region on the outer side of the outermost preset measurement position to be equal to the tilt data measured at the outermost preset measurement position.